

1-5. (CANCELED)

6. (NEW) A planetary transmission for machine tools, the planetary transmission comprising:

a drive shaft connected to a sun gear;

an output shaft connected to a planetary carrier;

an interior gear which, in a first operating position, engages with a housing and, in a second operating position, engages with the sun gear;

a hub that concentrically surrounds the drive shaft; and

a sliding collar that concentrically surrounds the hub and engages with the hub in one of the first operating position and the second operating position;

the sliding collar (5) engages a centering bore (7) in the loose end of the interior gear (4) concentrically located outside the hub (6); and

the centering bore (7), in the engaged position of the sliding collar (5), concentrically engages with the hub (6) over an axle of the hub and is placed over a centering collar (8).

7. (NEW) The planetary transmission according to claim 6, wherein the centering bore (7) first comes into contact with the centering collar (8) by approaching the centering collar (8), axially in a displacement direction of the centering bore (7), with a beveled running edge of the centering diameter (7).

8. (NEW) The planetary transmission according to claims 6, wherein the centering collar (8) first comes into contact with the centering bore (7) by approaching the centering bore (7), axially in a displacement direction of the centering bore (7), with the beveled running edge of the centering collar (8).

9. (NEW) The planetary transmission according to claim 6, wherein a holding ring (9) is in the loose upper side of the centering bore (7) in the hub (6).

10. (NEW) The planetary transmission according to claim 9, wherein the holding ring (9) is shrunk fit on to hub (6).